GLOBAL WARMING?

Big 3 weigh contingencies in face of higher CAFE threat

The automotive market's trend toward power and high performance will collide head-on with environmental concerns if Congress raises fuel-economy standards to slow the greenhouse effect.

In the past few months, product planners have been given an urgent mandate: Come up with contingency plans for a line of cars that could meet a dramatically stiffer corporate average fuel economy standard.

"We're looking at a parallel (product) plan — one assuming business as usual, the other assuming a greatly increased CAFE," said Chrysler Motors President Robert Lutz.

A high-ranking General Motors engineering source said "the possibility of stricter CAFE certainly is in our thinking on future engine programs and a little bit on car programs. That has changed in the last six months with the new administration and the vibes we're getting from Washington."

While auto companies are peering uncertainly into the post-Reagan 1990s, they already fear some vehicles may be in trouble.

At Chrysler, production of the proposed Dodge Viper V-10 sports car would be torpedoed by a tougher CAFE, Lutz said.

Even as his own company hopes to introduce a minivan, Subaru of America Chairman Harvey Lamm predicts the long-term demise of minivans: "I think you are going to see it legislated off the market."

One-third of the passenger-carrying vehicles in the United States are trucks. "That one-third emits more (pollutants) than the other two-thirds," Lamm said. Today's CAFE laws, which allow minivans to be counted in the laxer truck standards, "were written in another world," he said. "Trucks had only 20 percent of the market and there were no minivans."

He predicted that large passenger vehicles such as minivans will be forced eventually to run on alternate fuels.

Yet Subaru is not holding up its product planning — including hopes for a minivan or sport-utility-type vehicle — to await a CAFE decision, Lamm said.

A draconian plan to clean the air in the Los Angeles area has been proposed at the same time as Congress is looking at increasing CAFE to slow global warming. The California plan calls for heavy use of alternative fuels by the end of the 1990s, and elimination of the gasoline engines by 2007.

"California's going to do it first," predicts Thomas Mignanelli, executive vice president for operations at Nissan Motor Corp. in U.S.A. "I don't think the EPA is going to get their act together as fast as California."

Those converging environmental concerns emerge at a time of increased performance, power and fun in the automobile industry. Some auto executives see a sort of golden age of performance cars threatened by the environmental problems.

"If CAFE gets increased," Lutz told a group of automotive reporters in February, "I think everybody is just going to have to refocus on weight and fuel efficiency. And that means what possibly might have been a next generation of superb, American-built, world class rear-wheel-drive luxury sedans may be open to question again."

Last month, William K. Reilly, the administrator of the EPA in the new Bush administration, released a preliminary report calling for a CAFE standard of 40 or 50 mpg by the year 2000.

Auto industry executives compare the new environmental issues to the energy crises of 1974 and 1979, which shook the domestic industry and sped up the market penetration of smaller, more fuel-efficient Japanese cars.

Michael J. Schwarz, emissions control planning manager for the environmental and safety engineering staff at Ford Motor Co., said, "There's no question that global warming is legitimate — that is, there are a number of chemicals that reside in the atmosphere that result in warming the earth."

He said Ford advocates more research and the reduction of carbon dioxide and chlorofluorocarbons "without causing a major disruption in the economy or the industry. We don't think there is a scientific basis for treatment as a panic situation."

Schwarz and other executives contend that the government shouldn't push technology so fast that it results in a bad product.

While the Big 3 have international partnerships for the development or sale of engines, giving them more flexibility than they had a decade ago, Japanese makers remain the big leader in the numbers and kinds of small displacement engines.

George Peterson, an auto product-planning analyst and president of The AutoPacific Group in Newport Beach, Calif., said Japanese manufacturers would be able to respond much faster than domestics because they make smaller cars with more four-cylinder engines, and they develop vehicles

Lutz: "If CAFE gets increased I think everybody is just going to have to refocus on weight and fuel efficiency."

with shorter lead times that have shorter life cycles.

"But it would be much more of a problem now for the Japanese than in '74 and '79," Peterson predicted. "They have moved farther upscale than before," with larger cars and more V-6 engines.

Despite the air of urgency in Washington, the Big 3 point out that long product planning times mean that mileage improvements won't come immediately.

"You can't even speak of big CAFE improvements in the next few years," said Albert Slechter, Chrysler Motors' director of federal government affairs. "We are in the process now of designing 1993 and 1994 model products."

And in the early days of the Bush administration, automakers find themselves in limbo. They assume that CAFE will be increased, but they don't know when and by how much.

"The external pressures cause us to lay on paper a series of plans," Slechter said.

"Any company the size of Chrysler, General Motors or Ford has got to put together alternative plans to meet crisis situations. But you can only do so much of that.

"It puts us in a great deal of uncertainty. We go into sort of a continuous mode of contingency planning through the year 2000."

General Motors

GM is concentrating its resources on engine technology more than redesigning entire vehicles to meet existing and possibly stricter future CAFE standards.

Improving existing engines to get better fuel economy is easier in the short term. On the last go around prompted by the 1979 oil crisis, GM downsized and shifted virtually all of its fleet to front-wheel drive.

The company's approach to meeting existing and possibly stricter fuel economy standards while still meeting the market's demand for higher performance is a two-pronged effort: squeeze more horsepower out of existing engines without sacrificing fuel economy and maybe even improving it; and applying new technologies, primarily, multi-valve technology, into new engines. The majority of focus is on V-6 engines.

"Rather than going after the big, bold V-8 engines," said one high-ranking engineer, "we're now concentrating on high-revving V-6 engines, turbocharged engines and multi-valves.

"In the last couple of years," he added, "we have taken our eye off CAFE and fuel efficiency. We have looked at getting raw

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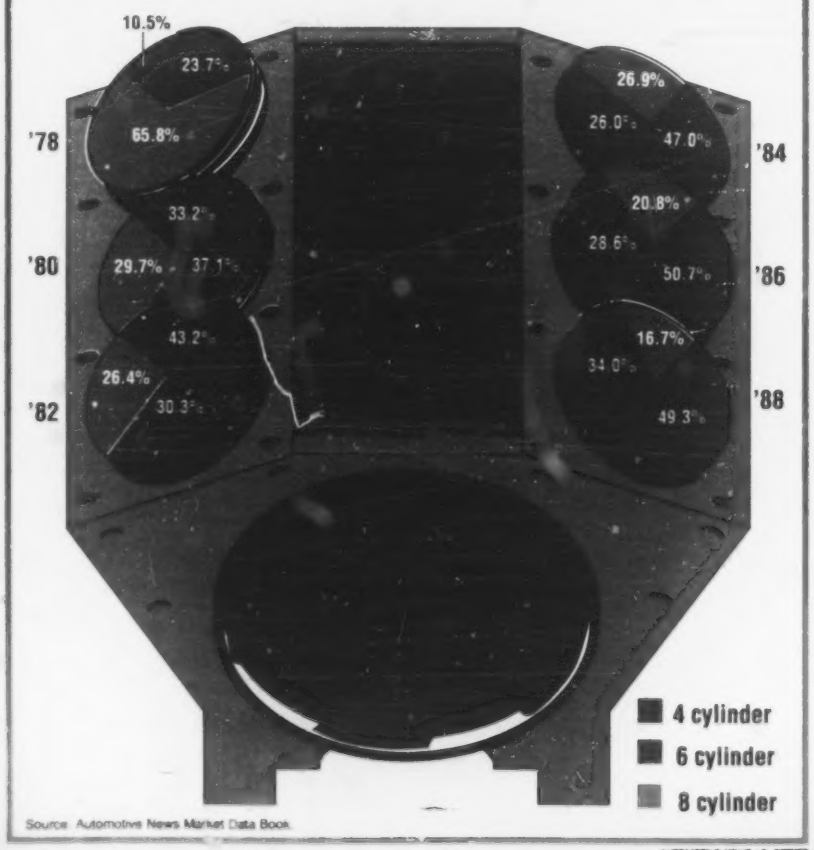
V-8s dwindle in the '80s

Since 1978, V-8 engine installations in domestic cars have plummeted. While four-cylinder powerplants have taken the lion's share, six-cylinder engines have hit their highest level in eight years.



Source: Automotive News Market Data Book

AUTOMOTIVE NEWS / C. [illegible]

CAFE PUSH

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product, it has a new engine in it." So Nissan can be flexible in the face of a tougher CAFE.

Domestic auto engineers and product planners say small gains in fuel economy are possible by "tweaking" the technology in the current mix of different-sized cars, but achieving 40 mpg would require a revolution in technology and in the size mix of the new car fleet.

Some government studies apparently agree with the engineers.(See story on Page 24.)

Domestic automakers argue that they build and sell large cars because that is what the market demands.

"Look at the success of the larger cars: Lincolns, Cadillacs," said an engineer with long-time domestic experience, principally in powerplants. "The mid-market is going upscale with larger, heavier cars. If the market tells us they don't want to buy efficient cars, we can't improve CAFE if we can't sell the cars."

Government, he added, will have to convince the public it is in their interest to purchase economical cars.

Deborah Lynn Bleviss, author of a book that has been influential in forming the fuel economy policies forwarded lately by environmentalists and government agencies, argues that the domestic manufacturers will be hurt by their inability to build small cars.

Import manufacturers, particularly the Japanese, will be able to ship their smaller home-market cars to the United States and will limit the number of captive imports they supply to their domestic partners, thus gaining more control over the market, she said.

But Bleviss maintains that as an alternative to re-entering the small car market, domestic manufacturers can create a niche of larger, fuel-efficient cars by using lighter materials, aerodynamics and advanced engine technology.

Bleviss, a physicist and executive director of the International Institute for Energy Conservation, a non-profit group which explores energy efficiency improvements for developing countries, studied the technology of auto manufacturers around the world. The result was her influential book, The New Oil Crisis and Fuel Economy Technologies.

New government proposals call for CAFE requirements of 40 to 50 mpg by the turn of the century, a prospect that frightens many manufacturers who are struggling to meet the current corporate average fuel economy standard of 26.5 mpg.

While the domestic industry argues for caution in raising CAFE, some analysts, environmentalists and government officials say the technology already exists to achieve substantial increases in fuel economy.

They cite experimental and prototype vehicles built by automakers to demonstrate fuel-economy technology. These vehicles include:

- The Volvo LCP 2000, a 65 mpg diesel-powered car.
- The Volkswagen E80, a diesel research vehicle that has returned 74 mpg city and 99 mpg on a highway test.
- The Toyota AXV diesel, which returned 89 mpg city and 110 mpg highway.

But domestic automakers did not offer any diesel-powered cars in 1988, down from nearly 7 percent of the market in 1981.

As for any significant short-term gains in fuel economy, domestic automakers have told Congress they're tapped out.

"Exotic experimental vehicles that have achieved very high fuel economy at GM and elsewhere are not evidence that cost-effective technology exists," said Marina v.N. Whitman, vice president and group executive of General Motors public affairs staff,

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power. Now we're looking at how do we get power with technology?"

Of the new technologies, four-valve engines are receiving the most attention. GM presently is the only domestic automaker to produce its own multi-valve engine — the 2.3-liter Quad 4. The engine is also the only domestically produced four-valve four-cylinder powerplant.

But the only other four-valve four-cylinder under consideration is a variation of the engine used in Saturn.

For the most part, GM is looking at using four-valve technology in its V-6 and V-8 engines. GM is known to have under development a 3.4-liter, 24-valve, overhead cam V-6 engine that will debut in the 1991 model year in GM's mid-sized line and a year or more later in the Pontiac Firebird and Chevrolet Camaro. GM also is developing with Lotus a 32-valve V-8, codenamed Northstar.

Use of turbochargers and superchargers will probably be limited to niche vehicles. Turbochargers will go into high-performance, sporty models like Pontiac Grand Prix, while superchargers will be used on luxury cars to give the feel of a larger engine off the line.

One example of GM's direction is the 3300 engine, introduced this model year, which uses conventional technology to improve the V-6. Displacement of the engine was boosted from 3.1 liters to 3.3 liters; horsepower increased to 160 horsepower from 125. Refinements were made to reduce friction, increase power and make the engine more reliable. While larger and more powerful, fuel economy increased an average of 2 mpg.

At the Chevrolet-Pontiac-GM of Canada Group similar upgrades are on tap for the 2-liter four-cylinder engine used in the Chevrolet Corsica and Beretta. For the 1990 model year, the displacement will be boosted to 2.2 liters and the engine will be given substantially more low-end torque. Fuel economy will remain the same.

But most of the focus is on V-6 engines, which account for about 55 percent of the engines produced by the automaker.

A contingent of engineers and designers are lobbying for a V-12 engine for Cadillac's top-of-the-line model in the 1990s. But, the V-12 faces stiff opposition from some GM executives, including President Robert Stempel. Higher CAFE and emission standards as well as GM's cost containment efforts may kill that powerplant.

As for alternate fuels, GM is testing variable-fueled vehicles in California. The vehicles use an electrical sensor to measure the type of fuel and make adjustments in air-fuel mixture and spark advance.

GM executives are convinced attention to fuel economy and emissions will intensify in the next year and beyond. But they are trying not to overreact as perhaps they did in the past.

Jack Schmidt, Chevrolet-Pontiac-Canada Group director of powertrain systems, said while improvements in existing engines and new engines are in the works, GM is waiting to see how dramatic the changes in CAFE are before acting. "A requirement for a 40 mpg car is a lot different from putting the standard beck to an average of 27.5 mpg," he said.

Alcohol loophole could worsen global warming

A law designed to encourage the use of alcohol fuels to reduce urban ozone pollution provides automakers with a loophole that may help them beat higher fuel economy standards prompted by global warming legislation.

And ironically, those alcohol-based fuels may even contribute more carbon dioxide, a gas that is linked to global warming.

The Alternative Motor Fuels Act of 1988 allows manufacturers of cars that run on alcohol-based fuels, usually a mixture of alcohol and gasoline, to rate those cars only on the amount of gasoline consumed.

Cars that run on a mixture that contains at least 85 percent alcohol are rated by a formula that can provide for an EPA fuel economy rating nearly four times higher than a similar gasoline-powered car, according to EPA.

For example, a car that gets 27 mpg running on a fuel that is at least 85 percent alcohol can be "rated" by the EPA at 100 mpg. In actuality, though, a methanol-powered car gets about 60 percent of the miles per gallon of a gasoline-powered car.

There is no limit to the effect such alcohol-dedicated vehicles can have on a manufacturer's fleet corporate average fuel economy rating. The fuel economy credit program starts in 1993 and runs to 2004.

For so-called flexible-fueled vehicles that can run on any combination of alcohol and gasoline, fuel economy is based on an average between the amount of alcohol and gasoline consumed.

In general, such cars can carry a CAFE rating that is slightly more than 150 percent higher than a similar gasoline-powered car. But since the vehicles can burn a range of fuel from virtually pure alcohol to pure gasoline, the bill limits these vehicles' contribution to raising a manufacturer's CAFE to only 1.2 mpg over their average.

Proposed global warming legislation links reduced carbon dioxide emissions to fuel efficiency. In a one-to-one swap of gasoline for methanol, the favored fuel from a cost standpoint, carbon dioxide emissions are about equal. Methanol is slightly more efficient in an engine, according to preliminary EPA analysis, but CO2 emissions from the production process of changing common natural gas to methanol would mean no net reduction in CO2.

When methanol is manufactured from coal in a plant of current design, now a rarely used process, CO2 emissions per vehicle double, EPA analysis indicates.

— Arthur Flax

Ford Motor Co.

A year after Ford made waves by launching a trio of high-performance cars — Taurus SHO, the Probe GT and Thunderbird Super Coupe/Mercury XR-7 as symbols of a new generation of performance — the company is preparing for the day when performance is defined in terms of miles per gallon, instead of miles per hour.

"CAFE has once again emerged as a major strategy issue," says a Ford product planner. He said resurrected concerns about the environment — and the amount of gasoline cars burn — have prompted Ford product planners to begin drawing up a variety of contingency plans.

If CAFE climbs dramatically, the product planner said "maybe V-8s and luxury cars won't be a No. 1 concern."

A new modular engine program that includes a V-8 is being readied for an early 1990s launch. But if stricter CAFE calls for a different mix of products, the modular nature of the engine program would allow Ford to respond more quickly than it has before.

While the new engine program is expected to yield improved fuel economy and fewer emissions, the chief asset is in manufacturing flexibility.

Because parts and components are shared, Ford will be able to shift production from one engine to another more quickly than it has before. The head of Ford's engine division has said that his goal is to be able to respond to a shift in demand within two or three years, as opposed to twice that time currently.

The first phase will come in April 1990, when production of a modular 4.6-liter V-8 begins in Romeo, Mich. A V-6 is expected to be built in Cleveland two years later. Ford officials have said a four-cylinder powerplant could be spun from the program.

Engines built under the effort will have a range of displacements. Multi-valve engines will be available, as will aluminum and cast iron blocks.

Meanwhile, when Ford changes its Escort next year, it will rely on 1.8-liter four-cylinder engines from its Japanese partner, Mazda. A new 2.3-liter four-cylinder engine program codenamed Zeta is in simultaneous development in the United States and Europe.

On another front, Ford will take a big step later this year with its alternative fuel program. The automaker will send a fleet of cars to California that can run on gasoline or methanol.

The "flexible-fuel" idea represents Ford's efforts to develop a vehicle that is less dependent on gasoline — and less of a contributor to air pollution.

Ford's long-term goal is to sell some cars that run solely on methanol, said Harvey Klein, a manager in Ford's fuel systems and powertrains technical support department. During the second half of 1989, Ford will begin delivering 200 to 600 cars over the next three years to the California Highway Patrol and other government fleets.

He sees the effort as the first major test of a program that could bring a Ford flexible-fuel vehicle to the market by the mid-1990s. Klein thinks the system — after durability tests are completed — could be ready for showrooms within five to seven years.

Chrysler Motors

Chrysler Motors has prepared an array of product scenarios to try to anticipate various proposed regulations, according to Albert Slechter, Chrysler Motors' director of federal government affairs.

No product plans have been delayed by the uncertainty, he said.

But Chrysler Motors President Robert Lutz has said increased CAFE standards would kill production of such high-performance vehicles as the proposed Dodge Viper V-10 sports car.

Despite the mood in Washington, Chrysler continues exploring performance engine options.

Francois J. Castaing, Chrysler Motors' vice president for vehicle engineering, has said the company is contemplating development of a V-8 engine for passenger cars in the 4- to 4.5-liter range. Chrysler ceased offering V-8 passenger cars when production of the M-body Chrysler Fifth Avenue, Dodge Diplomat and Plymouth Gran Fury ended in 1988.

Earlier this year, Castaing said: "If the fuel economy and fuel supply in this country do not become a real issue in the next five years — which we don't know yet — and if we see this is the trend of the industry, we need a small V-8 for our passenger cars."

Like GM, Chrysler is working on a passel of pumped up V-6s. A new Chrysler-built 3-liter V-6 is slated for a fall introduction. The company is considering four-valve and turbocharged versions of that powerplant and four-valve and turbocharged versions of a 3-liter Mitsubishi-built V-6 it uses.

Chrysler's four-cylinder engine program, which includes both 2.2- and 2.5-liter powerplants, is slated to get a Lotus-designed four-valve head.

At the sheer performance end of the market, an area Lutz says may be threatened by higher CAFE, is an 8-liter V-10 program for both Viper and truck applications, a 32-valve 4.5-liter Lamborghini-designed V-8 and a 4.5-liter V-8 supplied by Mitsubishi.

Chrysler is also undertaking what it calls a "significant effort" in exploring methanol-powered vehicles, according to Richard Schaum, Chrysler Motors executive engineer for powertrain systems.

Chrysler has a program to produce a methanol-powered vehicle in limited numbers by the 1993 model year if major technological hurdles are overcome and a supporting infrastructure exists. The technology is favored for full-size car production, although the first test units will likely be based on minivans.

Chrysler is developing two families of methanol-fueled vehicles. One is a gasoline-tolerant methanol vehicle, while the other, which is getting more attention, is a flexible-fueled vehicle.

On the gasoline-tolerant vehicle, "we raise the compression ratio of the engine to take full advantage of methanol's octane," Schaum said, adding the powerplant is designed to run primarily on methanol, but would tolerate some gasoline if methanol is unavailable.

The flexible-fueled vehicles "run anywhere from pure gasoline to 85 percent methanol. The vehicle will perform equally well on either fuel," Schaum said.

Chrysler will supply five gasoline-tolerant methanol vehicles and five flexible-fueled vehicles to the Los Angeles South Coast Air Quality Management District by mid-summer for a demonstration/evaluation program, Schaum said.

In addition, Chrysler will unveil a methanol-powered LeBaron J-coupe at the SAE Government/Industry Meeting being held in Washington this week.

Automotive News Staff Reporters Mary Connelly, Michelle Krebs and David Versical contributed to this report.

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during Senate testimony last month.

"These highly optimized experimental subcompacts do not have the utility and performance characteristics demanded by an overwhelming majority of consumers," she said, adding that GM is involved in research on a number of fuel-saving technologies, but "there are no technological breakthroughs affecting fuel economy on the horizon."

Ford Motor Co. echoes that sentiment.

"Changes in consumer demand in the past several years have caused Ford CAFE to plateau," Helen O. Petrauskas, Ford vice president for environmental and safety engineering, said recently during a Senate hearing. "This has occurred despite our introduction of extensive new technology and emphasis on small car sales.

"To maintain high levels of small cars — it takes about two small car sales to offset (the high fuel consumption of) one large car — Ford has invested some $3 billion since 1982 in rebates and other marketing incentives for the purchase of our most fuel-efficient vehicles."

Al Slechter, Chrysler Motors' director of federal government affairs, said, "Certain fuel efficiencies take the manufacturers from the world of the possible to the world of the not possible."

In an interview, Slechter said CAFE numbers in the range of 40 to 50 mpg "are just incredible to envision."

Chrysler believes the greatest CAFE improvements are likely to come from vehicle downsizing rather than technology gains.

"We have taken the very big whacks at the internal combustion engine pretty much to its absolute limits as far as burning fuel . . . and at transmission technology, aerodynamics and tire design," Slechter said.

Substitutions of materials are unlikely to yield large improvements in CAFE, he said.

"You would have to be talking about material substitutions that would take half the weight out of the vehicle. . . . I can see going to some pieces but not on the order of 50 percent of the vehicle weight," he said.

But others aren't convinced.

Author Bleviss said, "My contention from day one is that we don't have to switch to small cars. There could be the same mix."

She advocates systems engineering — designing the car to be fuel-efficient from the ground up. The result, she said, is that the V-8 engine will fall by the wayside, but not performance and acceleration. But ultra-high performance vehicles will probably not be in abundance, she said.

"People are demanding power, but perhaps they are getting more than they need," Bleviss said.

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GLOBAL WARMING?

At 45 mpg, futurists see nation of Escorts priced to sell

By Arthur Flax
AUTOMOTIVE NEWS STAFF REPORTER

WASHINGTON — Automakers would essentially give away small cars while selling luxury cars at a tremendous premium if a 45 mpg fleet fuel economy rating were to be mandated by 1995.

That's one hypothesis of a recent Department of Energy study regarding the market implications for domestically produced cars resulting from greatly increased fuel economy standards. Another hypothesis is that nearly nine out of 10 domestic cars would be Ford Escorts.

Those findings, while admittedly "absurd," show how far the current market conflicts with achieving 45 mpg.

The study predicts that a 45 mpg CAFE in 1995 would distort the market to such an extent that automakers would have to bribe consumers to buy small cars. Makers would have to knock almost $5,000, or more than half the sticker price, off the market-driven retail price of the most popular subcompact model and increase the cost of some luxury lines by as much as three times that amount to sell a fleet that would average 45 mpg.

To project a fleet of 1995 domestic cars, the researchers used a computer program that considered the sensitivity of each car to price and an initial market share that reflects current consumer demand, said David L. Greene, a member of the research staff at the Department of Energy's Oak Ridge National Laboratory and one of the authors.

When the computer model was pushed to 45 mpg, it showed that the Ford Escort cornered 88 percent of the domestic market, compared with its 5.6 percent baseline share. To entice buyers, the Escort would have to be priced at $4,906 below its market-driven retail price.

"Forty-five mpg for the fleet is pushing the model too far," Greene said. "One car that has 88 percent of the market is absurd. . . . Our point is that the market gets strange when pushed that far. There are only a handful of cars that could get 45 mpg."

The Escort fares best because of its relatively high market share going in and the fact that it will continue to be improved in Ford's future product plans.

General Motors' Saturn, which won't be introduced until 1990, comes out second under a 45 mpg CAFE with a 5.6 percent market share. At that level, the car would have to be offered with a $1,323 incentive, the model concludes.

Only one car line, a Dodge Shadow/Plymouth Sundance, would carry 0.5 percent market share in the 45 mpg model. The rest are either at a 0.3 percent market share or less.

Of the 40 domestic car lines in the model, six were eliminated altogether and 17 accounted for only 0.1 percent each of the market in the theoretical mix of cars that would achieve a 45 mpg fleet average.

The computer model also predicts the demise of some standard full-size cars such as Ford's Panther platform (Crown Victoria, Mercury Grand Marquis) and GM's H- and C-bodies. H-body cars are Pontiac Bonneville, Oldsmobile 88 and Buick LeSabre, while C-bodies are Oldsmobile 98, Buick Electra and Park Avenue, and Cadillac De Ville. In order that none of these cars are sold under a 45 mpg CAFE, the model says the Crown Victoria/Grand Marquis series would have to be priced $18,401 over its list price in a 38 mpg scenario, while the H- and C-bodies would carry disincentives as high as $15,107 and $14,400, respectively.

"The social cost of this radical alteration (a 45 mpg CAFE) is estimated at $4,177 per car, or over $40 billion per year" for a sales volume of 10 million cars industrywide, the study says.

While the study does not reflect the views of the Department of Energy, its authors submitted the work to the Energy Journal last January for peer review.

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The Natural Resources Defense Council cites the Bleviss book as one basis for its support of legislation requiring a 45 to 50 mpg CAFE by the year 2000, according to Richard Ayres, senior Natural Resources Defense Council attorney.

Daniel Becker, director of the Sierra Club's Global Warming Campaign, said the Environmental Group has proposed and supports legislation that calls for 45 mpg CAFE standards by 2000.

A car that returns 18 mpg, he said, emits 57.75 tons of carbon dioxide in its 10-year lifespan, compared with 26 tons of carbon dioxide from a car at 45 mpg, he said.

Over the past 15 years, automakers have doubled their EPA-certified fuel economy numbers from 14 mpg average to 28, according to Barry McNutt, a U.S. Department of Energy policy analyst. Under actual driving conditions, new cars have improved from about 14 mpg for 1974 models to 24 mpg for 1989 models, he said. As newer, more fuel-efficient cars are introduced and older less-efficient models retired, the average fuel economy of the entire U.S. passenger car fleet has edged upward from 14 mpg in 1974 to 18 mpg in the 1988 model year.

To accomplish this fuel economy improvement, automakers have switched from rear-wheel to predominantly front-wheel drive, with improved aerodynamics, engines and transmissions. Cars have also been reduced in both size and weight, while interior volume suffered little.

But in the last three or four years the public has demanded high performance and automakers have delivered. In many cases the old approach of stuffing a big V-8 under the hood has given way to producing power from smaller six- and four-cylinder engines with the aid of four-valves per cylinder, and turbo- and supercharging. Among these hopped engines are Ford's 24-valve Yamaha-built V-6 in the Taurus SHO, the 16-valve GM Quad-4 and intercooled and turbocharged four-cylinder engines by Chrysler.

While automakers are quick to tout their powerful new V-8 engines, the installation of such engines has dwindled from almost 66 percent of Big 3 production in 1978 to less than 19 percent in 1987. During that same period, four-cylinder production among domestic makers exploded from about 10 percent to 55 percent.

Japanese imports, on the other hand, won't be introducing their first V-8 engines until Toyota's Lexus and Nissan's Infiniti luxury cars bow this fall.

The renewed interest in high performance has seen four-cylinder penetration among domestic manufacturers actually decline for the first time since 1983, to 49.3 percent in 1988.

But that did not translate to more V-8s. Rather, V-6 production grew from 26.3 percent of the 1985 domestic model mix to 33.96 last year, its biggest jump since 1980. V-8s actually declined to 16.7 percent in 1988 from 18.5 percent a year earlier.

Industry sources say the technology is available to boost CAFE to 30 to 32 mpg by the mid-1990s. But they maintain that buyers won't pay for these improvements, nor opt for smaller cars if fuel prices remain low. At Chrysler Motors, which has the highest CAFE levels among the Big 3, officials advocate a gasoline tax of up to $1 per gallon as a way of encouraging the market to buy fuel-efficient cars.

Some of the domestic engineers are reluctant to be identified because of the sensitivity of the issue. But all the engineers interviewed for this story said their credo is to extract more efficiency from the product.

"In moving from 26.5 to 27.5 miles per gallon, the industry would probably do some size-mix gymnastics," said one source. "At 30 miles per gallon, we would start looking at aerodynamics, engine technology, and lighter parts."

Improvements in aerodynamics can be made along with normal styling changes. Cars are now 20 percent to 30 percent more aerodynamic than in the 1950s and 1960s.

Ford says aerodynamic designs resulted in a CAFE gain of one mpg from 1977 to 1983, and the company is sighting another 1.5 mpg gain by 1990.

To reach 30 mpgs, one source said manufacturers might choose to incorporate lighter, less powerful engines or more efficient engines, such as those with four-valves per cylinder.

"Over 30 or so miles per gallon, we would have to re-do the car, consider alternate fuels and make drastic changes in car size and shape," the source said. "You would have to re-think your car company (lineup): how many scooters would you have to sell to sell a luxury car."

If large economy improvements — into the 35 to 40 mpg range — are mandated, the industry will have to introduce new technology and hardware. As a powertrain expert, the engineer noted that engines with four valves per cylinder offer the potential to improve fuel economy and performance. Japanese makers are far ahead of the domestics in multi-valve engines. Multi-valve engines allow more efficient passage of the air-fuel mixture and exhaust gases in and out of the combustion chamber than standard two-valve arrangement that allows only one way in and out of the cylinder.

Even so, the engineer said, "It is naive and simplistic to think we can put that technology in every existing car and leapfrog to it."

Currently, General Motors is the only domestic automaker building four-valve per cylinder engines. GM builds the Quad-4, and Mercury Marine builds the soon-to-be offered LT-5 Corvette engine for GM.

And even the auto community is divided on the merits of four-valve technology as a fuel saver.

Richard Schaum, Chrysler Motors executive engineer for powertrain systems, said multi-valve engine and transmission technology are leading contenders for improving engine output. But he said multi-valve engines are primarily a performance booster.

Nobuhiko Kawamoto, president of Honda Research & Development Co., said his company considers four-valve engines the most efficient available. Honda, which currently uses four-valve technology in half its cars and three valves on the remainder, intends to apply the four-valve technology to all its future models.

Kawamoto said he believes all companies will eventually move to four-valve engines.

Cost has hindered multi-valve engines, chiefly because of the expense of building the twin camshaft arrangement that is the norm with most such designs.

As a result, most companies have reserved its use for higher-priced sporty models.

But Honda developed its single camshaft three years ago, which saves 40 percent off the cost with almost the same performance, Kawamoto said.

While the debate heightens over how to achieve higher mpg, manufacturers believe the difficulties grappling with trade-offs in cost and marketability of technology are lost on the government. At the same time, many executives privately acknowledge that they have a credibility problem stemming from the 1970s, when they argued that they couldn't meet higher energy standards — standards they have since met.

"We (in the auto industry) are interested in our national environment and energy issues," said the powertrain engineer with long-time domestic industry experience.

"There is not nearly enough understanding (in government) of the tradeoffs involved with putting technology into production."

Inventing a new fuel-efficient technology is only half the trick, he said. Then the manufacturer and its engineers have to balance fuel economy with emissions, manufacturing, cost and other considerations.

Fred J. Schaafsma, Chevrolet chief engineer, said, "I can't comment on specific fuel economy numbers. . . . Some of the numbers (projected in the proposed legislation) — wow! — are pretty far out. But do we want to do what's right for conservation and the environment? You bet."

Steven E. Plotkin, senior associate in the Office of Technology Assessment, told the House of Representatives subcommittee on oversight and investigations last month that the new-car fleet could achieve 33 mpg by 1995 by "intensifying the use of technologies that are already used in some car models."

The Office of Technology Assessment is a fact-finding arm of the Congress. Given the current market, the office predicts the average fuel economy of the new car fleet is likely to be 30 mpg or less by 1995.

The existing fuel saving technologies "will be cost-effective to consumers, but nevertheless they are unlikely to be demanded by consumers or provided by manufacturers without additional incentives," Plotkin told the subcommittee.

Studies by Plotkin's office indicate that the increase in performance of all cars from 1982 to 1987 reduced fuel economy levels by 1 to 1.6 miles per gallon from the level it would have reached at 1982 performance levels.

A new-car fleet that achieves 45 mpg will not occur without government intervention to close the gap between what the market demands and what is technically feasible, Plotkin told the subcommittee.

Daniel A. Lashof, an EPA environmental scientist who was one of the authors of the agency's report, "Policy Options for Stabilizing Global Climate," said the small percentage contribution to the greenhouse effect claimed by the domestic auto industry is probably accurate.

Ford's Petrauskas told the Senate hearing that a doubling of the fuel economy of the entire U.S. auto fleet would reduce the build-up of global warming gases by only about 0.5 percent.

But Lashof counters "Any individual contribution from an industry will look small, and it's likely that every industry will say they are not responsible for global warming on that basis. But it is a global problem that requires action."

FUEL ECONOMY PREDICTIONS:

- Department of Energy/Oak Ridge National Laboratory/Energy and Environmental Analysis:
  31.9 mpg by 1995 market-driven
  34.8 mpg by 1995 cost-effective
  38.0 mpg by 1995 technically-feasible
- Deborah Lynn Bleviss, author of "The New Oil Crisis and Fuel Economy Technologies:"
  45 mpg by 2000
- Center for Auto Safety:
  55 mpg by 2001
- Natural Resources Defense Council:
  45 to 50 mpg by 2000
- Sierra Club:
  45 mpg by 2000
- Office of Technology Assessment:
  33 mpg by 1995
- DOE's Energy Information Administration:
  34 mpg passenger car by 2000
  25.3 mpg light truck by 2000
- Martin Marietta Energy Systems' Energy and Environmental Analysis:
  31.3 mpg passenger car by 2000
  23 mpg light truck by 2000
- Data Resources Energy Review:
  30.1 mpg by 2000

CAFE credits help Ford, GM

But time may be running out on ways to avoid fines

By Diana T. Kurylko
AUTOMOTIVE NEWS STAFF REPORTER

WASHINGTON — By working a complex system of credits, Ford Motor Co. and General Motors have avoided paying multimillion-dollar fines for years in which they failed to attain gas-mileage requirements.

And while GM has potential liability of more than $150 million — a good portion of that for the 1985 model year when the corporate average fuel economy law was allowed to reach its 27.5-mpg limit — it is using the courts to push for a retroactive rollback that would reduce those penalties.

But new legislation brewing on Capitol Hill and a shift in the market may put both Ford and GM in the uncomfortable position of not attaining minimum CAFE standards even by using stored credits or court challenges.

Under the law, if a maker fails to meet CAFE for a particular model year, it is allowed to apply credits generated by exceeding the law in up to three model years prior to or following the affected model year.

If significantly higher CAFE standards are imposed in the mid-1990s, domestic automakers may find themselves in a bind. According to NHTSA estimates for the 1989 model year, Chrysler Motors is expected to have a fleet average of 27.7 mpg; GM, 26.9; and Ford Motor, 26.6, which will generate few credits against the current CAFE of 26.5 mpg. GM and Ford would have deficits if the congressionally mandated standard of 27.5 mpg were in effect.

The penalties are high. Manufacturers are liable for $5 per tenth of an mpg per car for failing to meet the standard.

Chrysler is the only member of the Big 3 that has never failed to meet CAFE. GM and Ford say they haven't meet CAFE because of consumer demand, and both have lobbied for lower standards for economic and technological reasons.

"The problem has been that manufacturers don't make changes to their cars every year," said David Kulp, manager of fuel economy and compliance for Ford.

"In the early 1990s, we should meet or exceed CAFE. The problem has been, if the sales mix is different than we expected, we need a lead of 36 to 48 months to fix things."

Automakers can make adjustments in two ways when they fail to meet the standard for a model year. They can use credits earned by exceeding CAFE in the prior three years or they can generate credits by surpassing CAFE in the three following model years. The credits were instituted in 1980 and applied retroactively to the CAFE law, which went into effect in 1978.

Neither GM nor Ford had to resort to using credits until 1983 since both exceeded CAFE in 1980-82 when the standard was 20 mpg, 22 mpg and 24 mpg, respectively. But as fuel prices stabilized and dropped and demand for large cars grew, GM and Ford had to draw on the credits generated in those previous years to avoid paying fines.

In the 1983 model year, when the standard was 26 mpg, GM posted only 24 mpg, while Ford's average was 24.3. Both used carryback credits to avoid fines.

"There were no possible means of meeting CAFE but restricting or eliminating all large cars and engine production, which would potentially have had a significant job impact," Kulp said.

Ford also blames its shortfall on late introductions of its more fuel efficient Ford Taurus and Mercury Sable and the Lincoln Continental which did not have full model-year impact on raising the company's CAFE.

Kelp said the boost of 2 mpg from 1982 to 1983 was so high "we would have fallen short of meeting it. Without the credits, we certainly would have had to do something to meet the standard."

For 1983, Ford used credits from 1980 with a value of $105 million. In 1984, Ford again fell short of the 27-mpg standard and used $120 million in credits from 1981. The shortfall occurred again in 1985, when the automaker took $68.5 million in credits earned from 1982 and borrowed $23 million in credits from 1986.

Ford and GM both exceeded the CAFE in 1986, 1987 and 1988. Ford earned $102.5 million credits in 1986; $85 million in 1987 and $42.5 million in 1988. Ford anticipates "being right on 26.5 (the CAFE level) for the 1989 model year," Kelp said.

NHTSA has data only through the 1986 model year and said that Ford has credits with a value of $392.5 million.

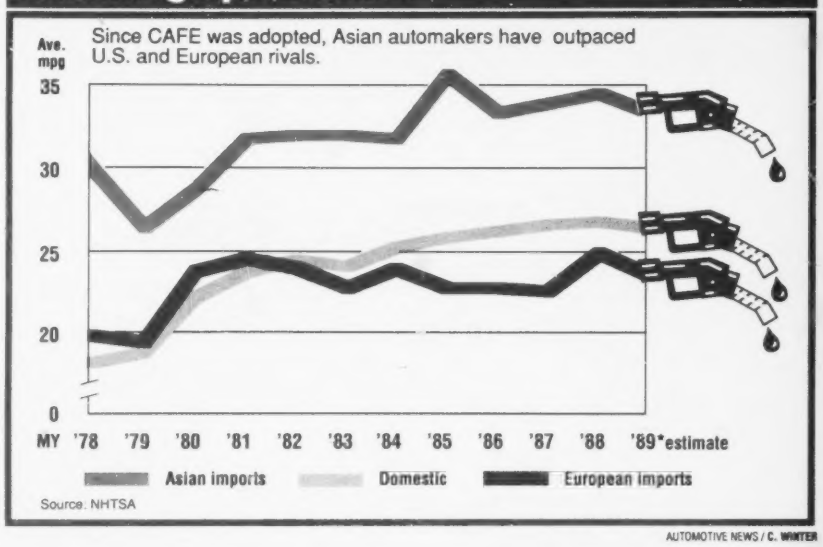
NHTSA said GM, on the other hand, owes the government more than 140 million credits for CAFE shortfalls between 1983 and 1985. Multiplying each credit (one-tenth of a mile) by the $5 fine results in a figure of $702.65 million.

While NHTSA anticipates that most of that will be offset with credits from 1988 when GM's economy rating of 27.6 mpg was higher than the 26.5 CAFE, GM's own figures show that it may be liable for more than $150 million. That is why it has lobbied NHTSA and has gone to court over a retroactive rollback of 1985 standards. Those challenges to date have been unsuccessful.

The last available figures from GM said it had $61.5 million in credits in 1986, another $122.5 million in 1987 and at least $264 million in 1988. Compared to the NHTSA shortfall number, that leaves GM with a potential liability of $155.65 million. GM declined to provide additional information.

Chrysler has earned credits worth $942 million, but it is unlikely the company will have to use credits since it has no plans to change its car lineup dramatically within the next three years. And those credits expire if they are not used within the three-year carryforward or carryback period.

Stacking up on CAFE



AUTOMOTIVE NEWS / C. WINTER

CORPORATE AVERAGE FUEL ECONOMY—1978-1988

	Chrysler	Ford	GM	CAFE Standard	Domestic Avg.	Import Avg.	Total Fleet
1978	18.4	18.4	19.0	18.0	18.7	27.3	19.9
1979	20.5	19.2	19.1	19.0	19.3	26.1	20.3
1980	22.3	22.9	22.6	20.0	22.6	29.5	24.3
1981	26.8	24.1	23.8	22.0	24.2	31.5	25.9
1982	27.6	25.0	24.6	24.0	25.0	31.1	26.6
1983	26.9	24.3	24.0	26.0	24.6	32.2	26.4
1984	27.8	25.8	24.9	27.0	25.6	31.8	26.9
1985	27.8	26.6	25.8	27.5	26.4	31.5	27.6
1986	27.8	27.0	26.6	26.0	26.9	31.7	28.1
1987	27.6	26.8	26.4	26.0	26.7	31.1	28.4
1988	28.4	26.4	27.6	26.0	27.3	31.2	28.7
1989 Est.	27.7	26.6	26.9	26.5	26.9	30.7	28.3

SOURCE: U.S. Department of Transportation, NHTSA.

Imports fear higher CAFE would boost fines, lower sales

By Jim Henry
AUTOMOTIVE NEWS STAFF REPORTER

NEW YORK — The tougher gas-mileage requirements being discussed in Congress particularly threaten the pocketbooks of European luxury imports and their buyers.

Manufacturers already pay millions of dollars annually because their fleets fail to meet corporate average fuel economy requirements. In addition, some consumers are forced to pay a gas-guzzler tax if the individual car fails to attain an average of 22.5 mpg. For example, a Jaguar XJ-S V-12 buyer pays an additional $1,850 because the car doesn't meet CAFE.

CAFE rules "are really made for the Big 3," said A.B. Shuman, public relations manager for Mercedes-Benz of North America. "The problem for Europeans is that they're not full-line manufacturers. They don't have little cars to balance out the higher-consumption cars."

High-performance European imports helped create the trend toward bigger, more powerful engines, but now they could be among the first to be squeezed by the resurrected demand for more fuel efficiency.

"We sell performance, and we sell size," said BMW of North America spokesman Tom McGurn. "It's tougher for a company like us, going after a small part of the market, to meet those (CAFE) standards."

In fact, only one of the major high-end European importers — Saab-Scania of North America — meets the 1989 CAFE standard of 26.5 mpg. It has an estimated CAFE of exactly 26.5 mpg because it offers only four-cylinder engines.

Mercedes-Benz has an estimated CAFE average of 21.2 mpg for the 1989 model year and leads the list in fines paid by imports. Those fines are based on sales volume and the size of the miles-per-gallon shortfall.

But due to credits earned in previous years not every vehicle that misses the standard is taxed. BMW was notified of an impending $1.28 million fine for the 1986 model year and $5.12 million for 1987. But earlier credits for better-than-required CAFE reduced its liability to zero for 1986. The credits also are expected to reduce the 1987 fine to $1 million. BMW's liability for the 1988 model year is expected to be around $17 million.

Mercedes-Benz was notified last fall that based on projections it will owe some $20.5 million for failing to meet the 1987 model year standard. Last December it paid a $20.2 million penalty for the 1986 model year. But the company reserved its right to challenge the assessment in court, as Mercedes-Benz of North America is doing in connection with its 1985 model year CAFE penalty of $5.5 million.

Jaguar is expected to be liable for $8.14 million for the 1986 model year; $5.32 million for 1987; and $5.54 million for 1988.

CAFE ratings for the European luxury makes held steady or declined as the standard rose from 26 mpg for 1988 to 26.5 mpg for the 1989 model year. Meanwhile, there are at least five bills in Congress that would mandate fuel economy on the order of 40 mpg by 2000. Most of the bills are concerned with global warming.

From 1988 to 1989, Jaguar's CAFE average fell from 22 mpg to 20.1 mpg because the company sold more cars with V-12 engines. Mercedes-Benz has held around 21 mpg since 1986. BMW's CAFE average rose from 21.6 mpg to 22.3 mpg for 1989; it had been 24.9 mpg in the 1987 model year.

Volvo Cars of North America's rating fell 1 mpg for 1989 to 25 mpg.

In addition to fines for failing to meet CAFE, models that do not meet certain minimum mileage levels also are saddled with gas-guzzler taxes that are paid by the consumer. In Volvo's case, its six-cylinder 760 and 780 models carry a $500 per car gas-guzzler tax.

So far, customers seem willing to pay the gas-guzzler taxes. But a higher CAFE with higher minimum fuel economy requirements could mean a significant jump in the gas-guzzler tax.

Ron Foster, president and chief executive officer of Lotus Cars USA, said even in the price range of a $67,500 Esprit Turbo, relatively good gas mileage is a competitive advantage. The Esprit Turbo squeezes a combined city/highway rating of 24.3 mpg out of a four-cylinder engine.

"It seems if you're already spending $67,000 on a car you wouldn't worry about another $1,200 for the gas guzzler, but it's a factor," he said.

Not everyone agrees that the luxury market is sensitive to gas-guzzler taxes. Mercedes-Benz lists its gas-guzzler tax as a sticker-price line item, but Jaguar includes it in its manufacturer's suggested retail price instead of listing it separately.

"We thought it (listing the gas-guzzler tax) might be a stigma but evidently it isn't," Shuman said. "People want a certain car, and they buy it."

Five Mercedes-Benz models ranging from the 190D sedan to the 300CE coupe don't have a gas-guzzler tax. Penalties for the six bigger cars range from $650 for the 300TE station wagon to $1,500 for the 560SEL sedan and the 560SEC sport coupe.

Ford scores best of Big 3 in Massachusetts lemon index

By Helen Kahn
SENIOR CORRESPONDENT

General Motors' and Chrysler Motors' shares of lemon law cases that were accepted for state arbitration in Massachusetts last year were higher than their market shares, while Ford Motor Co.'s was below its market share.

The real winners were Jaguar, Mercedes-Benz and Acura, which had no lemon law cases in state-run arbitration last year. Next best were Honda and Volvo. Low-volume makes such as Alfa Romeo, Peugeot, Sterling and Yugo fared the worst on a "lemon index" compiled by the Massachusetts' executive office of consumer affairs and business regulation.

A total of 698 cases were accepted for state arbitration last year out of 948 requests submitted. Some of those requests were settled before acceptance or rejection by the state. The number of requests fell 9 percent last year, to 948 from 1,043 in 1987.

The lemon index is based on a manufacturer's number of lemon law cases as a percentage of the state's total caseload compared to the maker's sales penetration. No index number was computed for cars with fewer than 100 registrations in the state in 1988.

If the percentages match, a marque's index is 0. Any variance above or below a maker's penetration results in a positive or negative lemon law index (see chart). The state said a higher index may mean that a manufacturer has vehicles with a higher number of defects or it is not resolving consumer complaints before they reach arbitration or both.

The state's report on lemon law arbitration also shows that last year eight manufacturers — Alfa Romeo, Chrysler, Ford, Hyundai, Mazda, Range Rover, Suzuki and Volvo — settled more than half of their accepted cases before arbitration began.

But while the settlement rates for Ford and Chrysler were high — 73 and 57 percent, respectively — GM's rate was only 37 percent overall. Moreover, Ford settled 15 percent of its disputes before they were even accepted for arbitration — suggesting, said the report, that Ford is addressing its problems early on.

The domestic companies had the largest percentage of the 698 cases that went before state boards. GM had 50 percent, Chrysler had 20 percent and Ford had 12 percent.

When compared with market penetration, GM's lemon law case penetration was 56 percent higher than its market share, Chrysler's was 33 percent higher and Ford's was actually 46 percent less than its market share.

Chrysler's number was only 12 percent higher than its market share if American Motors-Jeep-Renault vehicles are factored out. Those vehicles had a lemon index of 122 percent above market penetration, the state said.

While low-volume import makes like Alfa Romeo, Peugeot, Sterling and Yugo had lemon law indexes ranging from 314 to 1,590 percent of their market penetration, volume imports such as Honda, Toyota and Volvo had lemon law complaints ranging from 73 to 85 percent below their market shares.

The state office said the "probable" reason for the 9 percent drop in arbitration requests, from 1,043 in 1987 to 948 in 1988, is that automakers are settling disputes with consumers over warranty repairs before car owners turn to the state for help.

Not only did the number of requests for state-run arbitration drop, but so did the percentage of cases won by consumers — from 64 percent to 58 percent. In addition, only one decision was appealed last year, compared to 11 a year earlier.

The percentage of late awards also dropped last year, to 1 percent, down from 2 percent in 1987. A late award is additional damages of up to $5,000 per day levied against manufacturers who fail to either appeal or pay a judgment within 21 days. A total of $30,000 was collected for late awards in 1988 from only two companies — Porsche and Nissan.

MASSACHUSETTS LEMON LAW INDEX

Make	State market share*	Lemon law cases	Case pct.	Case pct. - U.S. market share
Alfa Romeo	0.03	4	.58	1,590
Peugeot	0.07	5	.72	938
Yugo	0.07	2	.29	323
Sterling	0.07	2	.29	314
Range Rover	0.04	1	.14	303
Porsche	0.10	2	.29	194
GM	32.02	349	50.36	56
Chrysler	15.36	143	20.63	33
Saab	.74	6	.87	16
VW	2.08	16	2.31	10
BMW	.55	4	.58	5
Hyundai	2.99	18	2.60	-14
Subaru	2.04	11	1.59	-23
Audi	.38	2	.29	-24
Mazda	2.11	11	1.59	-25
Mitsubishi	.59	3	.43	-28
Isuzu	1.89	4	.58	-36
Ford	21.61	81	11.69	-46
Suzuki	.33	1	.14	-57
Nissan	4.0	9	1.30	-68
Toyota	6.9	13	1.88	-73
Volvo	.91	1	.14	-84
Honda	4.7	5	.72	-85
M-B	4.9	0	0	-100
Jaguar	1.6	0	0	-100

*—Market shares are rounded.
NOTE: Lemon index indicates whether the number of complaints accepted against a manufacturer is greater than or less than its market share.

In 1988, a total of $3.3 million was awarded to the 236 consumers who were successful at arbitration. The state estimates another $4 million went to consumers who settled before arbitration.

By the end of 1988, Massachusetts had awarded more than $8 million in refunds/replacements as a direct result of its arbitration program, which started in April 1986. The state estimates that $9 million more has been received by owners of lemons who settled their cases before going to arbitration.

The state said the time between acceptance of a case for arbitration and settlement dropped to 46 days in 1988 from 53 days in 1987 and 58 days in 1986.

EPA calls for fines on pipe firms

WASHINGTON — Two manufacturers of standard exhaust tubing that replaces catalytic converters face more than $1.5 million in penalties from EPA.

The Justice Department filed a complaint on behalf of EPA in an Illinois federal court against Ced's Inc. of Addison, Ill., doing business as Products for Power. EPA charged Ced with breaking an agreement with the agency to stop making the pipes and is seeking $75,000 in civil penalties and more than $1.4 million in punitive damages.

In a related action, EPA issued a violation notice and proposed a $150,000 penalty against Perfection Automotive of Livonia, Mich., for the alleged manufacture and sale of catalytic converter replacement pipes.

EPA said the replacement pipes are used widely and illegally by repair facilities regulated under the Clean Air Act and do not improve performance as is often thought. The agency said its actions are part of a continuing effort to thwart the use of products that defeat emission control components.

Pontiac gives STE, 4wd to Grand Am

DETROIT — Pontiac will shift the STE designation and four-wheel-drive layout from its 6000 line to the Grand Prix for the 1990 model year.

STE, short for special touring edition, has been in Pontiac's mid-sized lineup for several years. The 6000-STE sedan, with its European-style ride and handling package, was designed to compete with German-made sport sedans. An all-wheel-drive model was added in the 1989 model year.

A four-door version of the Grand Prix will be offered for the 1990 model year. The 6000 will be dropped from Pontiac's lineup at the end of the 1990 model year.

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Auto trade deficit off; imports, exports drop

WASHINGTON — The U.S. automotive trade deficit in passenger cars and light trucks declined 3.1 percent in January because of a 4 percent drop in the value of imported vehicles.

Export value dipped 9.1 percent for the month, but its impact was not as significant since it dropped from a smaller base.

January's decline in the automotive trade deficit followed a 0.9 percent increase in December.

On an annualized basis, the automotive trade deficit was $43.44 billion as of January 1989. This compares to a $46.39 billion deficit for the 12-month period ended January 1988.

For January 1989, U.S. Commerce Department figures show a trade deficit for passenger cars and light trucks of $3.59 billion. That compares with $3.70 billion for January 1988.

Total car and truck imports had a value of $4.18 billion during January 1989, while car and truck exports were valued at $593.4 million.

Passenger-car exports totaled 33,127 vehicles with an estimated value of $415.2 million in January. Light-truck exports for the month totaled 15,679 vehicles with an estimated value of $178.2 million.

Passenger car exports were up 141.6 percent to Japan and 22.5 percent to nations labeled "others" by the Commerce Department. Passenger-car exports to Japan totaled 1,655 and to "others," 12,168 units for the month.

On the import side during January, Japan's car shipments to the United States declined 12.5 percent. The value of Japanese shipments fell 9.3 percent for the month. Both the value and quantity of Japanese truck imports declined as well.

Total car and truck imports from all nations had a value of $4.18 billion in January, down 4 percent from the $4.35 billion worth of imports recorded in January 1988.

There were 406,100 finished vehicles imported to the United States in January 1989, compared with 451,545 in January 1988.

Imports of passenger cars reached 324,779 units for the month with a value of $3.46 billion. Light-truck imports totaled 81,321 units, with a value of $719.6 million. The value of imported trucks surged 36.7 percent from a year earlier, while shipments increased 13.3 percent.

The increase in the value of truck shipments was primarily due to a 95.8 percent increase in the value of trucks shipped from Canada. Canada sent 43,400 trucks to the United States in January 1989, compared with 21,934 in January 1988.

Swedish car shipments to the United States rose 38.6 percent in January with a total of 13,058. France also increased its shipments. They were up 83.9 percent for the month to 1,041 automobiles.

As noted, Japanese-car shipments dropped 12.5 percent for the month and their value was 9.3 percent lower than a year earlier.

Japanese truck imports were off 23.8 percent and their value was down 10.4 percent.

Japan shipped 150,382 cars to the United States in January, down from 171,923 one year earlier. Truck shipments were 37,849 units, down from 49,685 units in January 1988.

Also shipping fewer cars in January were: Canada down 5.5 percent; West Germany off 20.8 percent; South Korea, 22.6 percent; Mexico, 60.3 percent; United Kingdom, 2.9 percent; Italy, 30.9 percent; and Brazil, 33.6 percent. Yugoslavia sent no cars to the United States in January, after sending 4,489 automobiles to the United States in January 1988.

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U.S. AUTOMOTIVE TRADE BY QUANTITY

Passenger cars

Country	Trade	Jan. 1988	Jan. 1989	Feb. 1987-Jan. 1988	Feb. 1988-Jan. 1989
Japan	Export	685	1,655	5,203	22,690
	Import	171,923	150,382	2,392,194	2,101,510
Canada	Export	33,949	19,304	566,293	602,265
	Import	90,988	85,957	964,160	1,186,316
West Germany	Import	25,634	20,303	377,016	258,918
South Korea	Import	54,307	42,057	433,338	443,491
Sweden	Import	9,423	13,058	136,248	140,640
Mexico	Import	12,932	5,128	134,563	140,261
Yugoslavia	Import	4,489	0	50,311	23,942
United Kingdom	Import	1,845	1,792	49,174	31,538
Italy	Import	725	501	8,740	5,829
France	Import	566	1,041	26,327	16,465
Brazil	Import	5,933	3,942	54,082	57,410
Others	Export	9,936	12,168	70,496	142,575
	Import	1,004	618	19,784	17,847
Car total	Export	44,570	33,127	641,992	767,530
	Import	379,779	324,779	4,645,937	4,395,213
TRADE BALANCE		(335,209)	(291,652)	(4,003,945)	(3,627,683)
Light trucks (up to 10,000 lbs. GVW)					
Canada	Export	11,544	13,541	162,041	154,683
	Import	21,934	43,400	234,782	320,817
Japan	Import	49,685	37,849	743,404	536,520
Mexico	Import	0	0	9,976	29
Others	Export	2,585	2,138	17,809	31,428
	Import	147	72	632	2,461
Truck total	Export	14,129	15,679	179,851	186,111
	Import	71,766	81,321	988,794	860,827
Trade balance		(57,637)	(65,642)	(808,943)	(674,716)
Car and truck total	Export	58,699	48,806	821,843	953,641
	Import	451,545	406,100	5,634,731	5,256,040
TRADE BALANCE		(392,846)	(357,846)	(4,812,888)	(4,302,399)

Compiled by Automotive News from official statistics of the U.S. Commerce Department, as reported by the U.S. International Trade Commission. Because of rounding, figures may not add to the totals shown.

U.S. AUTOMOTIVE TRADE BY VALUE

(x $1,000)

Passenger cars

Country	Trade	Jan. 1988	Jan. 1989	Feb. 1987-Jan. 1988	Feb. 1988-Jan. 1989
Japan	Export	$ 9,805	$ 23,642	$ 79,200	$ 285,249
	Import	1,556,264	1,411,709	21,150,864	19,733,145
Canada	Export	352,234	242,559	5,799,083	6,149,464
	Import	989,328	960,373	10,590,784	13,226,271
West Germany	Import	622,604	471,006	8,952,616	6,290,122
South Korea	Import	271,932	244,565	2,230,323	2,459,144
Sweden	Import	142,522	212,153	1,932,254	1,767,827
Mexico	Import	109,093	47,934	1,239,446	1,209,789
Yugoslavia	Import	11,431	0	128,748	64,363
United Kingdom	Import	54,027	56,053	1,177,464	943,443
Italy	Import	14,943	12,845	183,485	150,054
France	Import	8,110	12,636	253,624	175,704
Brazil	Import	31,464	22,864	270,465	332,674
Others	Export	136,772	149,045	949,200	1,793,489
	Import	15,921	10,117	301,728	286,787
Car total	Export	498,811	415,246	6,827,483	8,228,202
	Import	3,827,639	3,462,255	48,411,601	46,639,313
Trade balance		(3,328,828)	(3,047,009)	(41,584,118)	(38,411,111)
Light trucks (up to 10,000 lbs. GVW)					
Canada	Export	$ 116,475	$ 149,520	$ 1,579,825	$ 1,578,406
	Import	235,279	460,759	2,318,019	3,625,783
Japan	Import	260,252	251,027	4,127,200	3,211,964
Mexico	Import	141	719	80,144	10,545
Others	Export	37,243	28,683	224,433	384,137
	Import	10,917	7,131	81,197	131,970
Truck total	Export	153,700	178,203	1,804,258	1,960,542
	Import	526,589	719,636	6,606,561	6,986,854
Trade balance		(372,889)	(541,433)	(4,802,303)	(5,026,312)
Car and truck total	Export	652,511	593,449	8,631,741	10,188,744
	Import	4,354,228	4,181,891	55,018,162	53,626,167
VEHICLE TRADE BALANCE		(3,701,717)	(3,588,442)	(46,386,421)	(43,437,423)
TOTAL U.S. Merchandise trade (customs value)	Export	24,488,200	27,801,600	260,209,800	325,404,400
	Import	34,257,600	37,290,000	408,833,000	444,870,700
TRADE BALANCE		(9,769,400)	(9,488,400)	(148,624,000)	(119,466,300)

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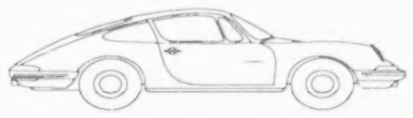

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'89 Aries	'89 Full size Blazers	'88 I-Marks	'89 Grand Prixs
'89 LeBaron Conv.	'89 Suburbans	'89 Escorts	'89 Sunbird Conv.
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May 3 — Columbus Fair Auto Auction, Obetz, Ohio, and Minneapolis Auto Auction, Plymouth, Minn.

May 4 — Southern States Vehicle Auction of Atlanta, Newman, Ga.; Fredericksburg Auto Auction, Fredericksburg, Va.; Salt Lake Auto Auction, Salt Lake City; and Metro Auto Auction of Kansas City, Lee's Summit, Mo.

May 5 — St. Louis Auto Auction, Bridgeton, Mo.

Ford Motor Co.

May 3 — Clanton's Auto Auction, Darlington, S.C.; Fort Worth Auto Auction, Fort Worth, Texas; Mississippi Auto Auction, Hattiesburg, Miss.; Lakeland Auto Auction, Lakeland, Fla.; Southern California Auto Auction, Fontana, Calif.; Omaha Auto Auction, Omaha, Neb.; and Salt Lake Auto Auction, Salt Lake City

May 4 — Ohio Auto Auction, Grove City, Ohio, and Manheim Auto Auction, Manheim, Pa.

General Motors

May 2 — Auto Dealers Exchange of Birmingham, Moody, Ala.; National Auto Dealer Exchange, Bordentown, N.J.; and Florida Auto Auction of Orlando, Ocoee, Fla.

May 3 — Indianapolis Auto Auction, Indianapolis; Metro Auto Auction of Kansas City, Lee's Summit, Mo.; Minneapolis Northstar Auto Auction, Shakopee, Minn.; and Golden Gate Auto Auction, Fremont, Calif.

Used Car Sales
Auction Averages

April 89	$6,110
Month ago	$5,587
Year ago	$5,730

Model Breakdown
Auction Averages

Year	APR 1989	MAR 1988	FEB 1988
1989 ...	$12,614	$12,197	$13,118
1988 ...	$9,469	$8,751	$8,235
1987 ...	$7,307	$7,338	$7,289
1986 ...	$6,101	$5,975	$6,014
1985 ...	$4,982	$4,978	$4,764
1984 ...	$3,954	$3,942	$3,840
1983 ...	$3,053	$2,867	$2,683
1982 ...	$2,520	$2,612	$2,187
Overall Average	$6,110	$6,061	$5,678

AUCTION DIRECTORY

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Mid-April sales climb, but slowly

Domestics register 4% gain after whopper early in month

By Roger Rowand
AUTOMOTIVE NEWS STAFF REPORTER

Sales of cars built in the United States continued to climb in the second 10 days of April but at a slower pace than in the first sales period when they climbed 30.12 percent.

Retail deliveries in the April 11-20 selling period rose 3.67 percent to total 237,386 units compared to 228,991 units a year before. There were nine selling days in each year.

In April's first 20 days, sales of new domestic cars rose 13.92 percent to total 425,994 units compared to 373,945 units a year before.

Sales of light trucks also rose in mid-April but, as it was for cars, the gain was far below the 24.74 percent climb in the first sales period.

Light-truck sales moved up 7.79 percent to total 136,465 units compared to 126,600 units a year earlier.

The combined car and light-truck sales total of 373,851 units for mid-April was 5.14 percent above the year-earlier total of 355,591 units.

DOMESTIC CAR SALES

	Apr. 11-20, 1989	Apr. 11-20, 1988
Eagle	1,318	1,423
Chrysler	6,889	8,179
Plymouth	8,481	9,163
Dodge	13,680	15,077
Chrysler Motors	30,368	33,842
Ford	51,045	45,516
Mercury	16,506	14,548
Lincoln	7,580	5,562
Ford Motor Co.	75,131	65,626
Buick	17,378	15,426
Cadillac	9,882	8,210
Chevrolet	42,196	44,171
Oldsmobile	20,321	19,881
Pontiac	20,885	24,656
General Motors	110,662	112,344
Volkswagen	—	1,375
Honda	11,323	10,738
Nissan	1,939	2,950
Toyota	5,977	1,396
Mazda	1,288	720
Mitsubishi	698	—
U.S. Car Total	237,386	228,991

In the 10 days of mid-April, Nissan dealers delivered 34.27 percent less cars than a year before. Chrysler Motors' car sales dipped 10.27 percent and General Motors' were down 1.50 percent.

Toyota reported a 328.15 percent increase as sales of its two U.S.-made models rose to a combined 5,977 units from 1,396 in mid-April last year, when the company was building only one model in the United States. Mazda sales in the period were up 78.89 percent; Ford Motor Co., up 14.48 percent; and Honda, up 5.45 percent.

Mitsubishi, a newcomer to U.S. production, reported sales of 698 units in mid-April.

Among the domestic light-truck makers, only Nissan, with a 14.61 percent dip, reported a decrease in sales. GM's light-truck sales rose 15.28 percent; Ford's, 4.94 percent; and Chrysler's, 2.97 percent.

On a combined car-truck basis, Nissan sales were down 23.56 percent, and Chrysler, 3.93 percent. Ford had a gain of 10.63 percent and GM, 3.49 percent.

Atlanta firm tries multi-dealer tent sales

By Lindsay Chappell
AUTOMOTIVE NEWS STAFF REPORTER

An Atlanta-area advertising firm in the coming weeks will introduce its multi-dealer "mega-tent sale" concept for selling new and used vehicles to dealers in Birmingham, Ala., Orlando, Fla., and Augusta, Ga.

J.R. Russell & Associates, an automotive ad agency based in Marietta, Ga., has staged six large tent sales around Atlanta over the past year, each one featuring 10 to 16 dealers and approximately 1,500 cars.

Agency principal Jim Russell said the firm will introduce the concept in other Southern cities.

Russell said the firm organized the multi-dealer tent sales to sell both new and used vehicles, drawing up to 5,000 prospects over a single weekend, with typical sales of 500 to 600 cars per four-day event. They have averaged a 10 percent closing rate, he said.

He said plans were not finalized, but the firm would organize both new and used car tent sales, which his firm markets under the Automania name in the other markets.

The first Automania event in Birmingham is scheduled for May 26-29. Dates for other markets have not been determined.

Russell & Associates also has coordinated Toyota Tent Sales for a number of Toyota dealer groups in the Southeast.

Russell said each dealer pays $18,000 to participate in an Automania. The fee covers marketing, selling space and props and site management during the sale.

"The secret to selling used cars is to treat them like new cars," Russell said. "No one gets excited about going to a used car sale. But if you make it bigger than life, you draw a crowd. You have to overcome the objection that it's just a used car sale."

Russell said the Automania concept relies on a combination of heavy print, radio and television advertising prior to the event. Professional models are hired to greet crowds and a fleet of golf carts is used to usher visitors from dealer to dealer, he said.

A system for sharing customers is devised prior to the event.

The sales are staged at well known locations that have a drawing power of their own, such as amusement parks, Russell said. The events also include concessions, clowns, free gifts, sky tracker spotlights and on-site radio broadcasts.

Sales continue until midnight each night with the grounds patrolled by hired security guards. Cars are washed and shined throughout the day, he said.

"A dealership might spend $50,000 to hold a typical weekend sale at the lot and sell 100 to 110 cars," Russell said. "One of these events would cost the dealer $18,000 to sell the same number.

"It costs about $150,000 to put on an event like this. One dealer isn't likely to pay that much, but when you split the cost among eight or 10 dealers, it isn't that much to spend."

He said some participants have sold between 150 and 175 used vehicles at a weekend event. It is not unusual for a participant to gross $130,000 in a weekend, he said.

"We've simply taken a good idea — the tent sale — and made it better. Dealers usually count on wholesaling their used vehicles. This environment allows them to roll the vehicles at better than wholesale," Russell said.

Van converter Zimmer files Chapter 11 reorganization plan

By Lindsay Chappell
AUTOMOTIVE NEWS STAFF REPORTER

Zimmer Corp. has filed a reorganization plan in an effort to work its way out of Chapter 11 bankruptcy.

The plan, which was filed jointly by the Pompano Beach, Fla., van conversion company and its creditors' committee, would pay $2.25 million to unsecured creditors in addition to other funds the company expects to receive.

Last month, an unidentified private investor committed $2 million in cash to Zimmer.

Myron Fulle, vice president and controller, said that provides most of the payment offered in the reorganization plan.

Fulle said additional money due the company in contingent liabilities and insurance proceeds also has been committed to repaying creditors. He expressed confidence the plan will be approved since it received unanimous approval from the creditors' committee.

Zimmer filed for Chapter 11 bankruptcy last year after a number of setbacks in its van and sport-utility conversion business. Company officials expect to be back in normal operation by year-end.

The reorganization plan and disclosure statement were filed March 24. A hearing is scheduled for May 1 to determine the adequacy of the disclosure statement, followed by a July 17 hearing on confirmation of the reorganization plan.

FORECAST

FROM PAGE 1

geover this summer.

The second-quarter industry plans show a sharp dichotomy between the Big 3 — which combined plan to build 7.19 percent fewer cars than the year-earlier period — and the six foreign-based companies producing in the United States. Those foreign companies upped their scheduling plans from original estimates and now plan to build 30.23 percent more cars this quarter than a year ago.

The biggest year-to-year percentage gain is expected at Mazda Motor Manufacturing U.S.A. Corp., which plans to build 84.75 percent more cars than one year ago when it was just beginning production, while the biggest relative drop is planned by Chrysler Motors — 17.47 percent.

The reaction of the automakers to the market and economy since they issued their first forecasts in early March shows the Big 3 vs. transplants dichotomy, too. General Motors trimmed its initial forecast 3 percent, while Ford Motor Co. and Chrysler cut theirs 4 percent. New United Motor Manufacturing Inc. and Toyota Motor Manufacturing U.S.A. held tight to their schedules, but the rest of the transplants upped theirs: American Honda Motor Co., 1 percent; Mazda, 6 percent; Diamond-Star Motors Corp., 14 percent, and Nissan Motor Manufacturing Corp. U.S.A., 17 percent.

Ann Knight, analyst for PaineWebber Inc., said she expects Ford to again slice its production plans. She expects large cuts at Chrysler and modest ones at GM.

The latest reductions in scheduled production were widely expected. Although domestic-car sales skyrocketed 30 percent in the first 10 days of April, following announcement of massive industry-wide incentives, the year-to-year gain for the mid-April period slowed to less than 4 percent.

"The trigger for us is the (domestic-car) selling rate in early to mid-April, which works out to about 7.6 million to 7.7 million units annualized," Kidder, Peabody & Co. analyst Jack V. Kirnan said last week.

"That's an improvement over the first quarter, but in the biggest incentive programs in the past — in 1985, 1986 and 1987 — the selling rate jumped some 35 to 40 percent over the prior period. Now — with the biggest incentives in history — you'd expect a sales rate of 9 million to 9.5 million units, and 7.6 million to 7.7 million is the response. Things have materially slowed in the industry," he said.

Kirnan lowered his 1989 sales estimate from 15 million to 14.7 million units, including 9.9 million cars instead of 10 million, and 4.8 million trucks instead of 5 million.

PaineWebber's Knight reduced her combined car and truck sales forecast from 14.8 million to 14.5 million for 1989.

The new forecast by Wendy Beale, auto analyst for Smith Barney, is for 14.3 million sales. She lowered her car sales forecast from 10.1 million to 9.5 million, and light trucks from 5.0 million to 4.8 million.

Scott F. Merlis, auto analyst for Morgan Stanley & Co., lowered his combined truck and car sales estimate from 15.1 million to 14.8 million for 1989.

The industry sold 15.80 million cars and trucks in 1988.

Automotive News Staff Reporters Kathy Boyer and Kathleen Hamilton in Detroit and Jim Henry in New York contributed to this report.

DEDRA: *New Lancia aimed at German luxury makes; first model derived from Fiat Tipo platform*

By Richard Johnson
AUTOMOTIVE NEWS STAFF REPORTER

MADRID, Spain — Fiat Auto's Lancia unit has launched a major upmarket push with the introduction of its new Dedra medium-sized sedan.

While it is the first model derived from the new front-drive Tipo, Fiat's volume model, Dedra is aimed at competing with entry-level luxury cars such as the Mercedes-Benz 190 and BMW 3 series. It replaces the Prisma in Lancia's line.

Lancia officials said four-wheel-drive and high-output versions of the three-box, four-door sedan are planned for the fall of 1990.

Developed at a cost of 500 billion lira ($366 million), the new notchback signals Fiat Auto's renewal of Lancia's and Alfa Romeo's medium ranges, with the former placing an emphasis on luxury and the latter on sportiness.

An Alfa version of the same platform, the successor to the 75, sold as the Milano in the United States, is slated for 1991.

Though Tipo serves as a basis for the new generation of mid-range Fiat, Lancia and Alfa Romeo products, Lancia officials stressed the differences among the cars.

While Dedra and Tipo share some floorpan components and body parts, the Lancia is 15 inches longer than the Fiat, covering 171 inches in overall length. Dedra is six inches longer than the Prisma it replaces. Both Dedra and Tipo ride on a 100-inch wheelbase.

Fiat said it has no plans to return to the U.S. market with Lancia. Instead, it will concentrate on building sales in the United States with Alfa Romeo.

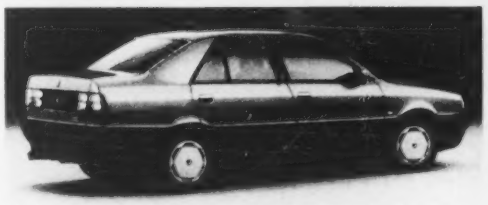
Umberto Visetti, director of Dedra marketing, said there would not be enough capacity to export the new car to America. Lancia expects to eventually produce about 100,000 units annually at the Chivasso plant near Turin, Italy. Daily output will slowly build to 400 units a day.

As a result, though the Dedra goes on sale in May in Italy it won't reach other European markets until early 1990. Lancia plans to export 35 to 40 percent to other European markets.

Dedra is part of an effort to boost total Lancia volume to 300,000 units annually by 1990. Sales last year totalled 274,000, up from 262,000 in 1987 and 232,000 in 1986.

Pricing will be in the 21-25 million lira ($15,400-$18,300) range in Italy.

The car fits into Europe's D segment, or upper-medium class, which last year accounted for sales of 3.2 million units in Europe. The segment includes such models as the Ford Sierra and Opel Vectra.



Dedra's Teutonic styling is evident in its rear treatment

But Fiat is positioning Dedra at the upper end of the segment with the likes of the Audi 80/90 and Honda Accord. This so-called "elite" sub-section of the D segment accounted for sales of 583,000 cars last year. Fiat management believes Dedra's German-influenced styling and options such as anti-lock brake system and electronic suspension damping should also make it a contender against entry-level Mercedes and BMW models.

The Dedra design was a collaboration of Turin's emerging IDEA Institute studio, which headed the Tipo design work, and Lancia's own styling operation. There is some resemblance to the BMW 5 series, especially around the C-pillar. Former BMW designer Ercole Spada heads IDEA's styling activities.

The car also carries some exterior themes reminiscent of the Mercedes-Benz 190 and 300E series. The drag coefficient of the new car is 0.29.

The Dedra has four four-cylinder engine options, ranging in displacements from 1.6 to 2 liters.

OBITUARIES

James H. Fearer

ORANGE, Calif. — James H. "Jock" Fearer, 68, director of marketing services for Daihatsu America, died April 15. Fearer joined Daihatsu at its inception in 1985.

Louis B. Neumiller

PEORIA HEIGHTS, Ill. — Louis B. Neumiller, 93, former chairman of Caterpillar Inc., died April 26. A division of the company manufactures diesel engines.

Court upholds NY lemon law

By Helen Kahn
SENIOR CORRESPONDENT

A New York state appellate court has upheld the state's lemon law arbitration system, but struck down a portion of the law prohibiting automakers from trying to prove in arbitration that the car can still be fixed.

Since Jan. 1, 1987, changes in the New York lemon law allowed consumers the option of paying a fee and using the state-run arbitration program to settle warranty disputes.

The Motor Vehicle Manufacturers Association challenged the program saying that compulsory arbitration deprived them of their right to a jury trial, violated their constitutional "right of access" to the lower civil court, and was an unconstitutional delegation of judicial authority.

A five-judge court unanimously found that the state lemon law is an "equitable remedy" and not an "action at law" to which the right to a jury trial attaches, turning aside the challenge. It also ruled the arbitration program is a "reasonable alternative" to lower civil court review because the program gives "adequate notice, an impartial arbitrator, and a 'full and equal opportunity' for each party to present his case."

Although the judges acknowledge that it is up to the consumer whether or not the manufacturer must submit to the state run program, they note "given the obvious inequality in their bargaining positions, we perceive no impropriety."

But the court agreed with MVMA in striking down a rule that prevented arbitrators from considering evidence that the defect can be fixed on another try.

While letting stand a provision that prohibits the arbitrator from ordering another repair — since the car is presumed to be a "lemon" after four repair attempts — the court said automakers must be allowed to present evidence that the car can be fixed in order to decide whether the consumer is to get a replacement vehicle or a refund.

Odometer tamperer loses high court bid

By Helen Kahn
SENIOR CORRESPONDENT

WASHINGTON — A Wisconsin man who sold used cars with rolled-back odometers to unwitting dealers failed to have his conviction on mail fraud charges overturned by the U.S. Supreme Court.

In a 5-4 decision, the court upheld 12 counts of mail fraud against Wayne T. Schmuck.

Schmuck contended innocence on the mail fraud charges because the dealers involved actually mailed the title applications containing the false information to the state's Department of Transportation on behalf of the cars' buyers.

Schmuck sought a dismissal before trial on grounds the mailings were not part of the fraud charge and wanted to be tried on odometer tampering charges only, which was a misdemeanor when the case was brought in 1983. The motion was denied and he was convicted.

A three-judge federal appeals panel reversed the lower court saying he should have been tried on the odometer tampering charges only, but the full appellate court overturned that decision. It said Schmuck could be convicted of the mail fraud charges without proving that he actually altered the odometers.

The majority of the Supreme Court agreed. It noted that Schmuck's scheme was an "ongoing fraudulent venture" to which the retail sales by dealers was essential. The court found Schmuck had used one person to roll back odometers on some 150 cars and dealt with dealers for as long as 15 years. It also found that he was paid more for low mileage cars.

Unwitting dealers profited from higher prices to consumers even though the scheme did not reach fruition until mailing was involved and titles transferred. As a result, the court said Schmuck was properly convicted of mail fraud.

NOTICE OF SALE

PLEASE TAKE NOTICE that Robert S. Hertzberg, Trustee of MCI Automotive Products, Inc., Bankruptcy Case No. 89-00692-G, has filed an Application to sell substantially all of the assets of this Estate. The hearing will be held on May 8, 1989, at 9:30 a.m. before the Honorable Ray Reynolds Graves, in his courtroom, 231 Lafayette Boulevard, Detroit, MI. The Debtor was a manufacturer and distributor of automotive brake rotors, brake drums and related products. The assets to be sold include inventory, whether finished goods, work-in-process or raw materials parts, machinery, equipment, rights in various unexpired real property leases, rights to purchase products from Pamex under the Pamex Requirements Agreement, books and records, good will, computer data, and other tangible and intangible assets.

The purchased assets do not include accounts receivable arising from the sale of inventory; certain leases in Birmingham, Michigan, Texas and Ohio, tax refunds or any causes of action which the Trustee may have under the avoiding powers provided in the Bankruptcy Code.

The Trustee has received an offer from Excel Automotive East, Inc. ("East Offer"), in the amount of $1,240,000.00. Any competitive bidder must bring to the hearing a certified check or cashiers check in the amount of $100,000.00. Any party or entity submitting such deposit or competitive bid must furnish the Trustee with Financial Statements which demonstrate an ability to purchase the assets of the Estate. A competitive bid will be considered only if: (1) it is from a financially responsible party or entity; (2) it contains the same or more favorable terms and conditions than does the East Offer; and (3) it offers a purchase price which exceeds 105% of the East Offer purchase price.

Pre-sale inspection will be held at 422 Sylvania, Toledo, Ohio 43612, on May 2, 1989, from 9:00 a.m. to 12:00 p.m. For further information contact Michael Cruse or Nanci Rosenbloom at Hertzberg & Golden, P.C., 344 N. Woodward, 2nd Floor, Birmingham, Michigan (313) 540-8282.

PRODUCTION

Car output holds firm; trucks slip

By Kathy Boyer
AUTOMOTIVE NEWS STAFF REPORTER

U.S. automakers scheduled last week's car output at 160,258, 0.77 percent below the previous week's 161,498, which was the highest week's output so far this year.

The prior week's output was the highest since the week ending Dec. 17, 1988, when 168,519 cars were built.

Last week's targeted production dipped 1.62 percent from the year-ago week's build of 162,905.

So far this year, 2,540,569 cars have been assembled, 8.48 percent more than the 2,341,932 completed last year at this point.

Companies split last week's scheduled output as follows: General Motors, 49.64 percent; Ford Motor Co., 24.07 percent; Chrysler Motors, 12.54 percent; Honda of America Manufacturing, 4.84 percent; Mazda Motor Manufacturing (U.S.A.) Corp., 3.09 percent; New United Motor Manufacturing Inc., 2.50 percent; Nissan Motor Manufacturing Co. U.S.A., 1.29 percent; Toyota Motor Manufacturing U.S.A., 1.25 percent; and Diamond-Star Motors, 0.78 percent.

Truckmakers slated output at 87,991 units last week, 5.10 percent below the prior week's 92,718 and 0.12 percent short of the year-ago week's 88,094.

Year-to-date, 1,523,766 trucks have been assembled, 7.00 percent more than the 1,424,128 built last year at this time.

Overtime was slated last Friday at GM's Janesville, Wis., plant.

GM scheduled overtime last Saturday at its Oklahoma City and Lordstown, Ohio, car and truck plants.

Overtime was slated last Saturday at Chrysler's Toledo, Ohio, and St. Louis (No. 2) plants.

Daily overtime was scheduled this week at Chrysler's Belvidere, Ill.; Newark, Del., St. Louis; Toledo; and Warren, Mich., plants.

Car output up 7% in Canada

Last week's scheduled Canadian car production of 21,431 increased 7.47 percent over the previous week's 19,942 but dropped 19.73 percent from the year-ago week's 26,700.

So far this year, 338,113 cars have been completed, 13.75 percent below the 392,015 built last year at this time.

Truck output was targeted at 21,137 units last week, 0.67 percent above the prior week's build of 20,996 and 4.50 percent more than the year-ago week's 20,226.

Year-to-date, 341,748 trucks have been built, an increase of 4.91 over the 325,750 assembled last year at this time.

As reported earlier, Chrysler Motors' Bramalea, Ontario, plant was idled last week for inventory adjustment. The company said it is tentatively scheduled to resume operation today.

General Motors' had overtime scheduled last Saturday at its Scarborough, Ontario, plant.

U.S. CAR	Week Ended Apr. 29, 1989	Week Ended Apr. 30, 1988	Week Ended Apr. 22, 1989	Apr. Est.	Jan. 1 to Apr. 29, 1989	Jan. 1 to Apr. 30, 1988
Horizon	800	2,528	834	3,249	3,952	30,957
Sundance	2,000	2,091	2,504	9,259	39,354	36,552
Reliant	0	2,711	0	0	0	31,996
Acclaim	2,400	0	2,681	10,378	39,610	0
Caravelle	0	502	0	0	0	6,808
Gran Fury	0	338	0	0	0	4,134
Total Plymouth	5,200	8,170	6,019	22,886	82,916	110,447
LeBaron K	0	581	0	0	0	6,162
LeBaron J	2,600	1,638	2,757	10,793	39,315	20,990
LeBaron GTS	0	149	0	0	2,946	2,861
N. Yorker C-Class	1,700	2,725	2,112	7,459	39,912	38,397
Fifth Avenue	0	403	0	0	0	12,510
Total Chrysler	4,300	5,496	4,869	18,252	82,173	79,220
Omni	900	2,557	956	3,715	4,613	30,873
Daytona	1,800	1,565	1,804	7,379	35,978	20,100
Shadow	2,300	2,356	2,341	9,411	39,877	36,526
Aries	0	2,267	0	0	0	27,127
Dodge 600	0	500	0	0	0	6,098
Dynasty	3,200	2,270	3,373	12,642	53,683	37,660
Lancer	0	269	0	0	1,528	3,829
Spirit	2,400	0	2,769	10,208	37,394	0
Diplomat	0	605	0	0	0	7,999
Total Dodge	10,600	12,389	11,243	43,355	173,073	170,212
CHRYSLER MOTORS	20,100	26,055	22,131	84,493	338,162	359,879
Escort	8,551	9,390	8,110	33,871	115,045	117,076
Mustang	3,360	4,171	4,146	16,109	80,636	73,076
Tempo	2,950	4,571	3,082	12,732	55,520	68,287
Taurus	8,111	8,829	8,297	34,894	135,282	135,405
Thunderbird	3,466	2,934	3,276	14,247	60,562	54,423
Total Ford Div.	26,438	29,895	26,911	111,853	447,045	448,267
Topaz	1,560	929	1,428	7,261	23,858	25,755
Cougar	3,461	2,696	3,257	12,660	51,706	41,042
Sable	2,638	3,564	2,638	9,014	44,226	45,883
Total Mercury	7,659	7,189	7,323	28,935	119,790	112,680
Continental	1,433	947	1,440	5,985	24,887	15,232
Mark VII	401	481	472	1,897	9,447	8,720
Lincoln	2,651	2,874	2,853	11,713	45,657	49,905
Total Lincoln	4,485	4,302	4,765	19,595	79,991	73,857
Total L-M Division	12,144	11,491	12,088	48,530	199,781	186,537
FORD MOTOR CO.	38,582	41,386	38,999	160,383	646,826	634,804
Skyhawk	479	0	425	1,747	5,829	11,350
Skylark/Somerset	1,310	1,753	1,294	5,244	18,794	12,080
Century	2,817	2,543	2,178	9,428	41,284	29,866
Riviera	337	161	527	1,970	9,432	2,358
Electra	1,959	2,293	2,115	7,982	29,078	27,043
LeSabre (fwd)	4,960	2,958	4,960	19,855	46,479	44,103
LeSabre (rwd)	220	298	183	771	3,251	2,997
Reatta	196	164	206	598	2,378	1,631
Total Buick	12,278	10,170	11,888	47,595	156,525	131,428
Cimmaron	0	139	0	0	0	3,533
Eldorado	989	1,244	844	3,689	13,445	13,369
Seville	720	743	688	2,672	9,881	8,520
Brougham (rwd)	630	977	607	2,774	14,423	12,061
Deville (fwd)	4,800	3,624	4,872	18,844	76,238	63,419
Allante	75	65	75	225	1,153	865
Total Cadillac	7,214	6,792	7,086	28,204	115,140	101,767
Cavalier	8,133	8,786	8,271	32,323	135,361	114,971
Camaro	2,685	2,485	2,582	10,671	41,860	26,085
Celebrity	2,244	4,645	1,907	8,754	50,066	54,702
Corsica/Beretta	8,815	9,035	8,900	34,215	143,885	135,219
Caprice	4,010	3,775	3,982	17,980	69,633	65,699
Corvette	450	445	560	2,130	8,778	7,247
Total Chevrolet	26,337	29,171	26,202	106,073	449,583	403,893
Calais	2,290	3,084	2,296	9,212	32,534	36,572
Firenza	0	0	0	0	0	5,220
Cutlass Ciera	1,490	0	1,549	6,828	28,537	0
Cutlass Supreme	3,620	3,597	3,458	7,078	34,343	77,621
Toronado	202	511	180	743	3,669	6,062
88 (fwd)	3,449	3,887	3,393	13,567	53,948	55,671
88 (rwd)	160	298	151	672	2,579	4,484
Olds 98	2,344	1,621	2,066	8,749	32,632	29,152
Total Oldsmobile	13,555	12,998	13,093	46,849	188,242	214,782
Sunbird	3,786	2,356	3,781	14,373	51,917	35,907
Grand Am	5,280	5,241	5,293	21,955	85,978	81,934
Firebird	1,405	1,643	1,334	5,533	24,480	20,338
Grand Prix	4,075	3,489	4,000	16,075	50,452	36,373
Pontiac 6000	2,544	2,490	2,181	9,471	32,915	25,910
Bonneville	2,940	3,164	2,948	11,564	34,868	34,724
Safari/Parisienne	130	260	117	469	1,846	2,789
Fiero	0	456	0	0	0	6,737
Total Pontiac	20,160	19,099	19,654	79,440	282,456	244,712
GENERAL MOTORS	79,544	76,230	77,923	308,161	1,191,946	1,096,582
DIAMOND-STAR	1,254	0	1,376	4,848	14,202	0
HONDA	7,750	8,947	7,660	30,694	130,610	123,596
Civic	2,614	2,582	2,682	10,535	43,968	31,661
Accord	5,136	6,365	4,998	20,159	86,642	91,935
MAZDA†	4,959	2,515	5,125	20,147	81,648	25,190
NISSAN	2,060	2,474	2,081	8,558	38,115	30,285
NUMMI	4,000	3,298	4,161	16,074	66,108	54,312
Corolla	1,600	1,224	1,478	6,078	27,261	20,010
Geo Prizm/Nova	2,400	2,074	2,683	9,996	38,847	34,302
TOYOTA	2,009	0	2,042	7,912	32,952	0
VOLKSWAGEN	0	0	0	0	0	17,264
Golf/GTI	0	0	0	0	0	11,731
Jetta	0	0	0	0	0	5,533
Total Cars, U.S.	160,258	162,905	161,498	641,270	2,540,569	2,341,932
Total Cars, Canada	21,431	26,700	19,942	85,962	338,113	392,015
U.S., Canada Cars	181,689	189,605	181,440	727,232	2,878,682	2,733,947
U.S., Canada Cars and Trucks	290,817	297,925	295,154	1,172,272	4,744,196	4,480,825

Monthly estimates may contain error of one or two units due to rounding.
†—Total includes the MX-6 and Ford Probe.

CANADIAN CAR	Week Ended Apr. 29, 1989	Week Ended Apr. 30, 1988	Week Ended Apr. 22, 1989	Apr. Est.	Jan. 1 to Apr. 29, 1989	Jan. 1 to Apr. 30, 1988
Premier	0	1,680	0	2,295	14,885	24,187
CHRYSLER MOTORS	0	1,680	0	2,295	14,885	24,187
Tempo	3,360	3,904	3,376	13,428	56,722	70,520
Topaz	1,440	1,733	1,422	5,711	23,941	23,627
Crown Victoria	2,582	2,757	2,555	10,304	45,101	47,681
Grand Marquis	3,178	2,859	3,088	12,590	51,263	47,105
FORD MOTOR CO.	10,560	11,253	10,441	42,033	177,027	188,933
Celebrity	701	338	270	1,367	3,887	6,012
Cutlass Ciera	3,215	7,270	3,690	14,364	62,002	86,749
Lumina	4,865	0	3,265	13,764	22,515	0
Pontiac 6000	0	1,434	0	0	0	17,017
Regal	0	3,847	189	3,902	24,643	55,966
GENERAL MOTORS	8,781	12,889	7,414	33,397	113,047	165,744
HONDA	1,650	679	1,702	6,562	27,709	11,020
TOYOTA	260	0	205	955	2,526	0
VOLVO	180	199	180	720	2,919	2,131
Total Cars, Canada	21,431	26,700	19,942	85,962	338,113	392,015

U.S. TRUCK☆	Week Ended Apr. 29, 1989	Week Ended Apr. 30, 1988	Week Ended Apr. 22, 1989	Apr. Est.	Jan. 1 to Apr. 29, 1989	Jan. 1 to Apr. 30, 1988
Caravan	2,400	2,262	2,488	9,527	38,198	34,110
Dakota	2,500	2,811	2,548	9,946	38,661	41,544
Mini-Ram Van	200	275	207	821	3,449	5,311
Pickups	2,500	1,424	2,558	9,959	38,654	20,370
Total Dodge	7,600	6,772	7,801	30,253	118,962	101,335
Cherokee	5,400	3,803	5,464	20,829	78,398	59,161
Commanche	600	1,046	645	2,471	11,457	16,226
Grand Wagoneer	300	350	345	645	5,028	4,865
Wagoneer	100	293	181	720	3,299	4,324
Total Jeep	6,400	5,492	6,635	24,665	98,182	89,776
Voyager	2,200	2,127	2,325	8,915	36,636	31,410
Total Plymouth	2,200	2,127	2,325	8,915	36,636	31,410
CHRYSLER MOTORS	16,200	14,391	16,761	63,833	253,780	222,521
Aerostar	4,960	4,504	5,698	21,377	84,910	77,937
Bronco	1,470	1,280	1,600	6,122	29,988	20,921
Bronco II	2,472	2,517	2,321	10,222	46,159	48,585
Econoline	5,248	5,246	5,061	20,472	84,534	84,961
Heavy trucks	1,466	1,462	1,680	6,181	23,812	22,898
Light trucks	11,737	10,406	12,543	47,877	188,389	173,636
Ranger	6,680	7,878	6,807	28,401	122,955	123,932
Total Ford Div.	34,033	33,293	35,710	140,652	578,747	550,870
FORD MOTOR CO.	34,033	33,293	35,710	140,652	578,747	550,870
Astro	3,280	3,635	3,309	13,763	59,104	59,212
Blazer	515	710	648	2,395	9,583	9,313
Mediums/Heavies	0	442	0	0	1,312	5,903
P-Model	849	832	830	3,223	11,150	13,277
Pickups	6,725	6,719	7,171	27,486	138,079	110,638
S-10	4,440	5,442	4,847	19,360	96,004	96,509
S-10 Blazer	3,746	3,173	3,925	15,481	65,804	53,651
Sportsvan/Van	2,121	2,232	2,428	8,816	33,357	26,666
Suburban	1,437	1,842	1,774	6,506	26,645	24,389
Total Chevrolet	23,113	25,027	24,932	97,030	441,038	399,558
Jimmy	143	127	177	618	2,860	2,945
Mediums/Heavies	0	865	0	0	1,496	15,126
P-Model	66	169	86	342	1,456	1,464
Pickups	2,882	2,338	2,834	11,526	41,939	35,570
S-15	1,164	1,863	1,306	4,943	22,789	23,078
S-15 Jimmy	924	1,466	1,140	4,339	18,731	13,759
Safari	731	932	1,072	3,768	14,725	15,274
Suburban	501	664	702	2,495	10,682	12,400
Vandura/Rally Vans	818	740	605	2,692	9,087	13,779
Total GMC	7,229	9,164	7,922	30,723	123,765	133,395
GENERAL MOTORS	30,342	34,191	32,854	127,753	564,803	532,953
NAVISTAR	1,786	1,879	1,782	7,229	29,512	29,714
NISSAN	2,180	1,590	2,161	9,316	44,354	41,870
AM GENERAL	450	450	450	1,800	7,470	7,560
MISCELLANEOUS	3,000	2,300	3,000	12,000	45,100	38,640
Total Trucks, U.S.	87,991	88,094	92,718	362,583	1,523,766	1,424,128

CANADIAN TRUCK	Week Ended Apr. 29, 1989	Week Ended Apr. 30, 1988	Week Ended Apr. 22, 1989	Apr. Est.	Jan. 1 to Apr. 29, 1989	Jan. 1 to Apr. 30, 1988
Caravan	3,101	3,176	3,191	13,079	52,449	51,095
Mini-Ram Van	339	345	272	1,277	3,803	4,787
Ram Wagon	732	567	661	2,079	9,906	8,253
Ram Van	1,618	1,540	1,707	5,061	25,481	20,758
Total Dodge	5,790	5,628	5,831	21,496	91,639	84,893
Voyager	2,704	2,848	2,793	11,570	45,718	47,234
Total Plymouth	2,704	2,848	2,793	11,570	45,718	47,234
Wrangler	1,700	1,111	1,857	7,275	27,75	17,333
Total Jeep	1,700	1,111	1,857	7,275	27,75/	17,333
CHRYSLER MOTORS	10,194	9,587	10,481	40,341	165,114	149,460
FORD MTR. (lt. trks.)	3,648	3,501	3,613	14,358	58,485	60,661
Light trucks	2,705	3,632	2,477	9,858	52,977	53,422
Vans	1,520	1,198	1,345	5,630	23,250	20,858
Total Chevrolet	4,225	4,830	3,822	15,488	76,227	74,280
Light trucks	2,175	1,263	2,042	8,464	26,255	26,047
Vans	625	819	765	2,730	11,442	11,627
Total GMC	2,800	2,082	2,807	11,194	37,697	37,674
GENERAL MOTORS	7,025	6,912	6,629	26,682	113,924	111,954
NAVISTAR	270	226	273	1,076	4,225	3,675
Total Trks., Canada	21,137	20,226	20,996	82,457	341,748	325,750
U.S., Canada Trks.	109,128	108,320	113,714	445,040	1,865,514	1,749,878

—Includes window van production. *—Estimated.
Jeep includes commercial only. AM General includes government-destined vehicles.
Miscellaneous includes estimates for Mack, Volvo-White, Kenworth, Peterbilt, Freightliner, Mercedes-Benz, etc.
Monthly estimates may contain error of one or two units due to rounding.